

GTCAAGGAAGAGGTACCTGGTGTCCATCAAGGTGCAGTCGGCCGGCATGACCAGTG
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CACATCCGTGTGAATGAAAAGGATGTGCTAATCAGCAAATCTTCCATCAACTTTACT
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TGGAGCAGAGATGGACAGCCTCGGTGGCAAATGTGATCCCAGTCAGCAGAAATTCT
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AGCTATTTGACGAGGACTTGAAAGAGTTACCAAACCTCTCTACTCGGATACGTTCT
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GTGCTGGCCTGTTTCTAATTGGCATGCTGGTGGCCCTTGTTGCCTTCTTCATCTGCAG
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GCCCCATAAAGATCAATCAGTTTGAAGGGCATTTCATGAAGCTGCAGGCAGACTCC
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GATGGTCTCGGAGTCCGTGCTCCCCGAGTGGACCATCAGGGAGTTTAAGATATGCAG
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GGGACTACATCAACAGAAGCCCCGGGGCTGGGCCCTCCGTAGTGCAGTGCAGCGCT
GGTGTGGGCAGAACAGGGACGTTTCGTTGCCCTGGACCGGATCCTCCAGCAGTTGGA
CTCTAAGGACTCCGTGGACATTTATGGGGCAGTGCATGACCTAAGACTCCACAGGGT
TCACATGGTCCAGACCGAGTGTCAATATGTGTATCTGCATCAGTGTGTAAGAGACGT
CTCAGAGCAAAGAACTGCGGAAACGAGCAAGAGAAAGGGGGTGTTCGATTTATG
AGAATGTGAATCAGAGTATCACAGAGATGCAATCTACTCGAGACATTAAGAATTC
(SEQ ID NO:1)

FIGURE 1

underlined = deleted in targeting construct

[] = sequence flanking Neo insert in targeting construct

[GTCAAGGAAGAGGTACCTGGTGTCCATCAAGGTGCAGTCG] GCCGGCATGACCAGTGAGGT
GGTTGAAGATAGCACCATCACCATGATAGACCGCCCGCCTCAACCGCCTCCACACATCCG
TGTGAATGAAAAGGATGTGCTAATCAGCAAATCTTCCATCAACTTTACTGTCAACTGCAG
CTGGTTTCAGCGACACCAACGGAGCGGTTGGGTACTTTGCTGTGGTGGTGAGAGAGGCCGA
CAGCAT [GGATGAGTTGAAGCCAGAACAGCAGCACCCTCTCCCTTCCTACCTGGAGTACAG
ACACAACGCCTCCATCCGAGTCTACCAGACCAATTATTTTGCCAGCAAATGTGCTGAAAG
TCCCGACAGCAGTTCTAAAAGTTTCAACATTAAGCTTGGAGCAGAGATGGACAGCCTCGG
TGGCAAATGTGATCCCAGTCAGCAGAAATTCTGTGATGGACCGCTGTTGCCACACACCGC
CTACAG] AATCAGCATCCGGGCTTTTACACAGCTATTTGACGAGGACTTGAAAGAGTTAC
CAAACCTCTCTACTCGGATACGTTCTTCTCTATGCCCATCACCACAGAGTCAGAGCCCTT
GTTTGGAGTTATTGAAGGTGTGAGTGCTGGCCTGTTTCTAATTGGCATGCTGGTGGCCCT
TGTTGCCTTCTTCATCTGCAGACAGAAAGCTAGCCACAGCAGGGAAAGGCCATCTGCCCCG
GCTCAGCATTCGTAGGGACCGGCCTTTGTCTGTCCATCTGAATCTGGGCCAGAAAGGCAA
CCGGAAAACCTTCTTGCCCCATAAAGATCAATCAGTTTGAAGGGCATTTTCATGAAGCTGCA
GGCAGACTCCAACCTACCTTCTATCCAAGGAATATGAGGACTTAAAAGACGTGGGTAGAAG
CCAGTCATGTGACATTGCCCTCTTGCCCTGAGAATCGAGGGAAAAATCGATAACAACAT
ATTGCCTTATGATGCCTCAAGAGTGAAGCTCTCGAATGTGATGACGACCCTTGCTCTGA
CTACATCAACGCCAGCTACATCCCCGGTAACAACCTTCAGACGAGAATACATCGCCACTCA
GGGACCGCTTCCAGGCACCAAGGATGACTTCTGGAAGATGGCGTGGGAGCAGAACGTTCA
CAACATCGTCATGGTGACCCAGTGTTGTTGAAAAGGGCCGAGTGAAGTGTGACCATTACTG
GCCAGCAGACCAGGACCCCCCTCTACTACGGTGATCTCATCCTACAGATGGTCTCGGAGTC
CGTGCTCCCCGAGTGGAACCATCAGGGAGTTTAAGATATGCAGTGAAGAACAGTTGGATGC
ACACAGACTCATCCGTCACTTTCACTACACGGTGTGGCCAGACCATGGGGTCCCAGAGAC
CACCCAGTCCCTGATCCAATTTGTGAGGACAGTCAGGGACTACATCAACAGAAGCCCCGG
GGCTGGGCCCCTCCGTAGTGCACTGCAGCGCTGGTGTGGGCAGAACAGGGACGTTGTTGC
CCTGGACCGGATCCTCCAGCAGTTGGAATCTAAGGACTCCGTGGACATTTATGGGGCAGT
GCATGACCTAAGACTCCACAGGGTTACATGGTCCAGACCGAGTGTCAATATGTGTATCT
GCATCAGTGTGTAAGAGACGTCTCAGAGCAAAGAACTGCGGAAACGAGCAAGAGAAAGG
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CATTAGAATTTC

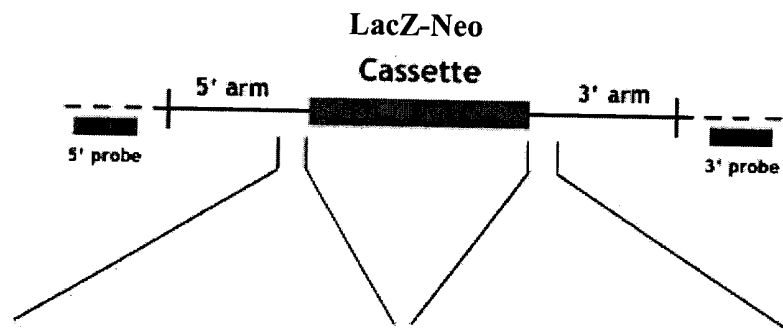
FIGURE 2A

Gene Sequence Structure * 41 bp Sequence Deleted 246 bp

Size of partial cDNA: 1752 bp

Targeting Vector* (genomic sequence)

Arm Length:
5': 0.7 kb
3': 2.5 kb



— Targeting Vector
- - - Endogenous Locus

* Not drawn to scale

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5' >GCCGCCCCCAGAACTCCACGG
CCATTGCCTGCTCTTGGATACCTC
CTGACTCCGACTTTGATGGCTACA
GCATTGAGTGCCGAAAAATGGATA
CCCAAGAAATCGAGTTTTCCAGAA
AGCTGGAGAAAGAAAAATCACTGC
TCAACATCATGATGTTAGTACCTC
ATAAGAGGTACCTGGTGTCCATCA
AGGTGCAGTCG<3'
(SEQ ID NO:2)
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5' >GGATGAGTTGAAGCCAGAACA
GCAGCACCCCTCTCCCTTCCTACCT
GGAGTACAGACACAACGCCTCCAT
CCGAGTCTACCAGACCAATTATTT
TGCCAGCAAATGTGCTGAAAGTCC
CGACAGCAGTTCTAAAAGTTTCAA
CATTAAGCTTGGAGCAGAGATGGA
CAGCCTCGGTGGCAAATGTGATCC
CAGTCAGCAGA<3'
(SEQ ID NO:3)
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FIGURE 2B